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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* MICHAEL LEON FEILMEIER,  
CHARLES DEAN BRANDT, and ERIC LEE BRANDT

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Appeal 2008-2484  
Application 10/039,175  
Technology Center 2600

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Decided: August 11, 2008

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Before ROBERT E. NAPPI, SCOTT R. BOALICK, and KEVIN F. TURNER, *Administrative Patent Judges*.

NAPPI, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 6(b) of the final rejection of claims 1 through 15, 17, 18, 20 through 25, 27 through 30, 34 through 39, and 41 through 43.

We affirm the Examiner's rejections of these claims.

## INVENTION

The invention is directed to a portable computing device which has a touch sensitive screen. The device operates such that the processor recognizes when an input device is on the screen and registers the input as the location where the input device is removed from the screen and not where the input device touches the screen. This allows the user to more accurately input data to the device when the portable device is used in a moving environment where it may be difficult to accurately place the input device on the screen. The portable computing device also includes a rocker arm input device that is operable in two modes. The portable computing device can be used with Computer Aided Design (CAD) programs. See pages 1, 2, and 4 of Appellants' Specification. Claims 1, 13, and 39 are representative of the invention and reproduced below:

1. A portable computing device, comprising:  
a user interface having a touch-sensitive display that detects contact between an input device and the display;  
a processor; and  
a memory that stores a location indicated by a user on the display;  
wherein said location is determined by detecting contact between the input device and the display, any movement of the input device across and in contact with the display and removal of the input device from the display; said location being where the input device is removed from the display and not where the input device initially contacts the display.
  
13. A computer aided design (CAD) system, comprising:  
a main computer that runs a desktop CAD program;  
at least one portable computing device that runs a portable CAD program; and  
a communication link between the main computer and the at least one portable computing device, wherein the portable CAD

program and the desktop CAD program are complementary to allow data to be exchanged between the main computer and the portable computing device;

wherein the portable CAD program generates a script file comprising any additions or changes made with regard to a CAD file on the portable computing device, wherein the script file is separate from the CAD file.

39. A portable computing unit comprising:  
a touch-sensitive display that detects contact between an input device and the display;  
a processor;  
a memory; and  
a rocker arm for controlling said display;  
wherein said rocker arm is movable in both a rotary direction and in a linear direction.

#### REFERENCES

Hardin	US 4,817,034	Mar. 28, 1989
Echerer	US 5,384,862	Jan. 24, 1995
Carter	US 5,907,705	May 25, 1999
Kung	US 6,570,583 B1	May 27, 2003 (filed Sep. 18, 2000)

*Handbook for the Palm VII Organizer*, 3Com Corporation, 1998  
(hereinafter Palm)

*Remote Engineering, Inc. Releases PocketCAD*, Remote Engineering (1999).  
<http://web.archive.org/web/19991013091843/http://pocketcad.com/>  
(hereinafter Remote Engineering)

#### REJECTIONS AT ISSUE

Claims 1, 2, 5, 6, 25, 27, 34, and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Palm in view of Hardin. The Examiner's rejection is on pages 3 through 6 of the Answer.

Claims 7 through 10, 12, 28, and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Palm in view of Hardin and Remote Engineering. The Examiner's rejection is on pages 6 through 9 of the Answer.

Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Palm in view of Hardin, Remote Engineering and Carter. The Examiner's rejection is on pages 9 through 10 of the Answer.

Claims 3, 4, 39, and 41 through 43 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Palm in view of Hardin and Kung. The Examiner's rejection is on pages 10 and 11 of the Answer.

Claims 13 through 15, 17, 18, 20 through 22, 29, 30, 37, and 38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Palm in view of Hardin, Remote Engineering and Echerer. The Examiner's rejection is on pages 11 through 15 of the Answer.

Claims 23 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Palm in view of Hardin, Remote Engineering, Echerer and Kung. The Examiner's rejection is on pages 15 and 16 of the Answer.

Throughout the opinion, we make reference to the Brief (received August 8, 2007) and the Answer (mailed March 9, 2006) for the respective details thereof.

## ISSUES

### *Rejection of claims 1, 2, 5, 6, 25, 27, 34, and 35 under 35 U.S.C. § 103(a)*

Appellants argue on pages 9 through 12 of the Brief that the Examiner's rejection of claims 1, 2, 5, 6, 25, 27, 34, and 35 is in error. Appellants reason that the Office Action concedes that Palm does not teach a memory that stores a location indicated by a user being where the input device is removed and not where the input device initially contacts the display. Br. 10. Further, Appellants argue that Hardin discloses a system which captures all contact between the cursor and the digitizer pad, which is directly contrary to the Appellants' device which saves the location where the input device is removed and not where the input device initially contacts the screen.

Thus, Appellants' contentions with respect to the rejection of claims 1, 2, 5, 6, 25, 27, 34, and 35 present us with the issue of whether the Examiner erred in finding that the combination Palm and Hardin teach storing a location in memory as claimed.

### *Rejections of claims 7 through 12, 28, and 36 under 35 U.S.C. § 103(a)*

Appellants argue on page 12 of the Brief that claims 7 through 10, 12, 28, and 36 are patentable for the reasons discussed with respect to the independent claims. Appellants make a similar statement regarding claim 11 on page 13 of the Brief.

Thus, Appellants' contentions with respect to these claims present us with the same issues discussed with respect to the rejection of claims 1, 2, 5, 6, 25, 27, 34, and 35.

*Rejection of claims 3, 4, 39, and 41 through 43 under 35 U.S.C. § 103(a)*

Appellants argue on page 13 of the Brief, that the Examiner's rejection of these claims is in error. Appellants assert that claims recite a rocker arm and that the "rocker switch" of Kung is not a rocker arm as claimed.

Thus, Appellants' contentions present us with the issue of the Examiner erred in finding that Kung teaches a rocker arm as claimed.

*Rejection of claims 13 through 15, 17, 18, 20 thorough 22, 29, 30, 37, and 38 under 35 U.S.C. § 103(a)*

Appellants argue on pages 14 through 16 of the Brief, that the Examiner's rejection of these claims is in error. Appellants assert that the Examiner's rejection is in error as Echerer does not teach generating a script file comprising additions or changes to an image file. Br. 15. Appellants state that Echerer teaches a system that enhances an image and extracts information from the image, and as such the file manipulation is different than the claimed file manipulation. Appellants argue that Echerer teaches that the information about the image is stored in the image and not separate from the image, and that thought the enhancements are stored in a separate memory location they are not discussed as being in a separate file. Br. 16. Additionally, Appellants argue that there is no evidence that Echerer's system, which deals with x-ray images, would be combined with the CAD program such as discussed in Remote Engineering. Br. 16.

Thus, Appellants' contentions with respect to this rejection present us with two issues; whether the Examiner erred in determining that Echerer teaches generating a script file comprising additions or changes made with

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an image file and second whether the Examiner erred in finding that one skilled in the art would have found it obvious to combine the teachings of the references.

*Rejection of claims 23, and 24 under 35 U.S.C. § 103(a)*

Appellants argue on pages 16 and 17 of the Brief, that these claims is in error are patentable for the reasons discussed with respect to the independent claim 13.

Thus, Appellants' contentions with respect to these claims present us with the same issues discussed with respect to the rejection of claims 13 through 15, 17, 18, 20 through 22, 29, 30, 37, and 38.

#### PRINCIPLES OF LAW

Office personnel must rely on Appellant's disclosure to properly determine the meaning of the terms used in the claims. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) (en banc). “[I]nterpreting what is *meant* by a word *in* a claim ‘is not to be confused with adding an extraneous limitation appearing in the specification, which is improper.’” *In re Cruciferous Sprout Litigation*, 301 F.3d 1343, 1348, (emphasis in original) (citing *Intervet Am., Inc. v. Kee-Vet Labs., Inc.*, 887 F.2d 1050, 1053 (Fed. Cir. 1989)).

On the issue of obviousness, the Supreme Court has recently stated that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007).

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it,

either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. . . . [A] court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

*Id.* at 1740. “One of the ways in which a patent’s subject matter can be proved obvious is by noting that there existed at the time of the invention a known problem for which there was an obvious solution encompassed by the patent’s claims.” *Id.* at 1742.

37 C.F.R. § 41.37 (c)(1)(vii) states:

For each ground of rejection applying to two or more claims, the claims may be argued separately or as a group. When multiple claims subject to the same ground of rejection are argued as a group by appellant, the Board may select a single claim from the group of claims that are argued together to decide the appeal with respect to the group of claims as to the ground of rejection on the basis of the selected claim alone. Notwithstanding any other provision of this paragraph, the failure of appellant to separately argue claims which appellant has grouped together shall constitute a waiver of any argument that the Board must consider the patentability of any grouped claim separately.... A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim.

## FINDINGS OF FACT

1. Hardin teaches a handwriting duplication system.

Abstract.

2. Hardin teaches that the system includes a signature capturing routine shown in figure 8A. Col. 10, ll. 47-49.

3. The signature capture routine makes use of a digitizer pad and signals representative of whether the pen is on the pad or the pen has been removed from the pad. The digitizer produces 200 points of data (x-y coordinates) per-second the points stored are shown are shown in Appendix I (depicted in cols. 17-20).

Hardin, col. 10, ll. 50-68, col. 11, ll. 1-8 and col. 15, ll. 33-34.

4. When a pen up signal is received, the x coordinate data from the digitizer pad is preceded by a 0; when a pen down signal is sent, the x coordinate data is preceded by a 1. Hardin, col. 11, ll. 10-11, col. 15, ll. 57-67.

5. As can be seen in the stored data depicted in Appendix I, the data identifies when the pen touched the pad, shown in the third x-y data entry (col. E-F) of row 7 on the table. The data points in the remainder of row 7 through the fourth x-y data entry (col. G-H) of row 49 (the first row in col. 19-20 of the patent), represent the movement of the pen from the point where the pen touched the pad. The x data entry of the fourth x-y data entry (col. G-H) of row 49 is preceded by 0, thus showing that the pen was lifted at this location, and the values of the x-y coordinates for this location are different from the values where the pen first contacted the pad. Hardin, col. 15 l. 67 through col. 16, ll. 5, col. 16, ll. 21-24.

6. Kung teaches a hand held device that includes a feature which allows the user to zoom in to the display. Abstract.

7. Kung's device includes a two dimensional rocker switch item 104 which controls the zoom. Col. 5, ll. 54-58.

8. The rocker switch can rock left and right, it also has a pressure sensitive switch below the rocker which the user can actuate by pressing down on the rocker switch while rocking left and right. Kung, col. 58-67.

9. Echerer teaches a system to allow a user to enhance x-ray images which are in a computer. Abstract.

10. The different enhancements are depicted by the options in flow charts of figures 3a and 3b. These enhancements include zoom, contrast adjustment, creation of lines, measurement of angles and edge enhancement. Echerer figs. 3a, and 3b.

11. The calculations associated with these enhancements are stored in a temporary file and when they are all accepted they are stored in a storage device. Echerer figures 3a and 3b, final step storage of the calculations in storage device.

12. The enhancement information is stored in a memory location separate from the bitmap image. Echerer col. 6, ll. 31-33.

13. Based upon fact 12 and as Echerer teaches that the bitmap and the enhancements may or may not be combined into a report (col. 6, ll. 33-35) one skilled in the art would recognize that the two memory locations represent two files as there is no indication that the two memory locations constitute one file.

## ANALYSIS

*Rejection of claims 1, 2, 5, 6, 25, 27, 34, and 35 under 35 U.S.C. § 103(a)*

Appellants' arguments have not persuaded us of error in the Examiner's rejection of claim 1, 2, 5, 6, 25, 27, 34, and 35. Initially, we note that since Appellants' arguments discuss claims 1, 2, 5, 6, 25, 27, 34, and 35 together and do not identify a reason why they are separately patentable, Appellants have grouped these claims together and we select claim 1 as representative of the group.

Appellants' arguments have not persuaded us that the Examiner erred in finding that the combination Palm and Hardin teach storing a location in memory as claimed as claimed. Claim 1 recites a memory that stores a location indicated by a user "wherein said location is determined by detecting contact between the input device and the display, any movement of the input device across and in contact with the display and removal of the input device from the display; said location being where the input device is removed from the display and not where the input device initially contacts the display." Thus, the scope of claim 1 includes that the value for the location stored in memory is determined by detecting contact and movement of the input device, and the value stored is the location where the input device is removed from the display. This value is not the location where the input device initially contacts the screen. The Examiner states on page 16 of the Answer:

[I]t is note[ed] that the language of said claims is not considering limiting just to one action (i.e. the removal of a give input device). Said claim language, comprising open ended language (i.e. claim 1, line 1, "portable computing device, comprising"), simply discloses limiting a memory, not all of the memory of a given computing device, to information

relevant to the removal of an input device from a display. Thus, due to said open ended language said claim language does not limit the number of memories which can be used to store additional or other location information. In addition said language does not limit the number of locations able to be stored in said memory, even if said memory is limited to a single memory and not a plurality of memory.

We concur with the Examiner's claim interpretation and note that claim 1 does not recite that the only value stored in memory is the value so determined, but rather we consider that the scope of the claim is broad enough to include that other values can also be stored in memory as long as one value stored in memory meets the criteria. We note that Appellants' argument, on page 11 of the Brief, that Hardin differs from the invention as it stores all contact between the input device including the initial contact point is not commensurate in scope with the claim, as the claim is broad enough to include the memory storing other data.

The Examiner finds on pages 4 and 5 of the Answer that Hardin teaches a memory that stores a location indicated by a user where the location is where the input device is removed from the display device and not where the input device initially contacts the display. We find that Hardin teaches a device with a signature capturing routine. Fact 2. This routine captures the motion of a pen as a user operates the pen and stores a plurality of values in memory. Fact 3. One of the values stored in memory is where the pen is lifted from the pad, this value is determined after detecting contact with the pad and any movement of the input device, and this location is not the location where the input device initially contacted the pad. Fact 5. Thus, we find that there is sufficient evidence to support the Examiner's finding.

We are also not persuaded by Appellants' argument, on pages 11 and 12 of the Brief, that unlike the prior art, Appellants have discovered that noting the location of where the input device is removed has the advantage of allowing more accurate use of touch screen devices in environments where the user is in motion. We do not consider this argument to be commensurate with the scope of claim 1. We do not find any limitations nor have Appellants have identified any limitations directed to the use of input devices in environments where the user is in motion. As discussed above, Appellants have not persuaded us of error in the Examiner's findings that Hardin teaches the limitations directed to storing the location where the input device is removed from a pad.

For the foregoing reasons, Appellants' arguments have not persuaded us of error in the Examiner's rejections of claims 1, 2, 5, 6, 25, 27, 34, and 35 under 35 U.S.C. § 103(a), and we sustain these rejections.

*Rejections of claims 7 through 12, 28, and 36 under 35 U.S.C. § 103(a)*

Appellants' arguments have not persuaded us that the Examiner erred in rejecting claims 7 through 12, 28, and 36. Appellants argue that the rejection is in error for the reasons presented with respect to claim 1. As discussed *supra*, we do not find that the Examiner erred in rejecting claim 1. Accordingly, Appellants' arguments have not persuaded us of error in the rejections of claims 7 through 12, 28, and 36 and we therefore sustain the Examiner's rejections of these claims.

*Rejection of claims 3, 4, 39 and 41 through 43 under 35 U.S.C. § 103(a)*

Appellants' arguments have not persuaded us of error in the Examiner's rejection of claim 3, 4, 39, and 41 through 43. Initially, we note that since Appellants' arguments discuss claims 3, 4, and 39 through 43 together and do not identify a reason why they are separately patentable, Appellants have grouped these claims together and we select claim 39 as representative of the group.

Claim 39 recites "a rocker arm for controlling said display; wherein said rocker arm is movable in both a rotary direction and in a linear direction." Thus, the scope of the claim is that the "rocker arm" provides control for a display, and that it is movable in both a rotary direction and a linear direction. We note that the claim does not recite that the rocker arm extends from the unit as implied by Appellants' argument on page 13 of the Brief. Further, Appellants' Specification, para. 0032, discusses the rocker arm as having a push button switch and a rocking or rotary motion, but makes no mention of the arm extending from the unit. While the drawings do depict such an arrangement, we decline to import such a limitation from the drawings into the claim.

The Examiner finds, on page 17 of the Answer, that Kung teaches that pointing device 104 is a rocker switch which meets the claims. We concur with the Examiner's findings on page 17. Kung teaches that the rocker switch 104 controls the display. Fact 7. The rocker switch rocks left and right, a rotary direction, and the rocker switch can be pushed in a linear direction. Fact 8. Thus, we find that there is ample evidence to support the Examiner's finding. As Appellants' arguments have not persuaded us that

the Examiner erred in finding that Kung teaches a rocker arm as claimed, we sustain the Examiner's rejection of claims 3, 4, 39, and 41 through 43.

*Rejection of claims 13 through 15, 17, 18, 20 through 22, 29, 30, 37, and 38 under 35 U.S.C. § 103(a)*

Appellants' arguments have not persuaded us of error in the Examiner's rejection of claims 13 through 15, 17, 18, 20 through 22, 29, 30, 37, and 38. Initially, we note that since Appellants' arguments discuss claims 13 through 15, 17, 18, 20 through 22, 29, 30, 37, and 38 together and do not identify a reason why they are separately patentable, Appellants have grouped these claims together and we select claim 13 as representative of the group.

Claim 13 recites "the portable CAD program generates a script file comprising any additions or changes made with regard to a CAD file on the portable computing device, wherein the script file is separate from the CAD file." Thus, the scope of claim 13 includes that there are two files: a CAD file and another file containing additions or changes made to the CAD file on the portable device.

The Examiner finds on page 18 of the Answer that Palm teaches a HotSync operation which allows a two way exchange of data between the portable device and the desktop computer. The Examiner finds that the first HotSync takes a while for the two devices to share the same data, but after the initial synchronization, the HotSync process is much quicker as only the changes are synchronized. Ans. 18. Appellants have not contested these findings by the Examiner and we adopt these finding by the Examiner (see also page 67 of Palm). We note that as the HotSync involves only

transferring changes, the data transferred between the portable device and the desktop computer is necessarily a file and as such it is a file that contains changes and additions. The Examiner also finds on page 18 of the Answer, that Remote Engineering teaches using a program called PocketCad which allows CAD files to be transferred to and be modified by a mobile device which uses Windows CE. The Examiner notes that Remote Engineering identifies that the changes are saved on the portable device and can be loaded back to the non-portable computer running a CAD program. The Examiner notes that the changed copy is kept on the non-portable machine with a different file extension (thus a separate file). Again, Appellants have not contested these findings by the Examiner and we adopt these finding by the Examiner (see also page 6 of copy of Remote Engineering provided by the Examiner). We also note that the portable devices of Remote Engineering and PALM are similar. While it is not apparent to us whether Remote Engineering's changed file that is transferred to the non-portable machine contains all of the information of the original CAD file or just the changes, we do consider that, given Palm's teaching that to have a quick synchronization just the changes are transmitted, one skilled in the art would seek to only transfer the changes. As such we consider using the HotSync technique to transfer only the changes to the CAD file of Remote Engineering to be obvious, as it is merely using known techniques for their known purposes. Thus, as we find that Palm and Remote Engineering teach the limitation Appellants argue is not taught by Echerer, we are not persuaded of error in the Examiner's rejection.

Nonetheless, the Examiner on page 12 of the Answer finds that Echerer teaches that changes to a bitmap image are stored separately from

the bitmap. Appellants' arguments have not persuaded us of error in the Examiner's findings. Echerer teaches that the user can make enhancements to an image file, where these enhancements include zoom and the addition of lines to the image. Fact 10. We note that paragraph 0093 of Appellants' Specification identifies that one of the changes that Appellants' device can make to the CAD file is to create a line. Thus, we consider Echerer's enhancements to be of the same type of changes as Appellants' claimed "additions or changes." Echerer's enhancements are stored in a temporary memory and when accepted by the user, the enhancements are saved in a storage device in a second memory location separate from the bitmap image. Facts 11 and 12. This separate memory location is a separate file. Fact 13. Thus, Appellants' arguments have not persuaded us that the Examiner erred in determining that Echerer teaches generating a script file comprising additions or changes made to an image file.

Further, we are not persuaded by Appellants' arguments that one skilled in the art would not combine Echerer's teachings of a separate file with the CAD program of Remote Engineering. As discussed above, we find that PALM and Remote Engineering alone provide suggestion to generate a file separate from the CAD file which contains only the changes. Further, as discussed above, we find that Echerer teaches providing a file separate with changes to an image separate from an image file. That Echerer is directed to images of x-rays where as Remote Engineering is directed to CAD files is of no consequence, as both systems are directed to modifying existing files. We consider the nature of the problems involved in both systems to be similar and that the combination represents nothing more than using existing methods for their known purpose.

For the above reasons, Appellants' arguments have not persuaded us of error in the Examiner's rejection of claims 13 through 15, 17, 18, 20 through 22, 29, 30, 37, and 38, and we sustain this rejection.

*Rejection of claims 23, and 24 under 35 U.S.C. § 103(a)*

Appellants' arguments have not persuaded us that the Examiner erred in rejecting claims 23 and 24. Appellants argue that the rejection is in error for the reasons presented with respect to claim 13. As discussed *supra*, we do not find that the Examiner erred in rejecting claim 13. Accordingly, Appellants' arguments have not persuaded us of error in rejecting claims 23 and 24 and we therefore sustain the Examiner's rejection of these claims.

### CONCLUSION

For the foregoing reasons, we sustain the Examiner's rejections of claims 1 through 15, 17, 18, 20 through 25, 27 through 30, 34 through 39, and 41 through 43 under 35 U.S.C. § 103(a).

### ORDER

The decision of the Examiner is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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STEVEN L. NICHOLS  
RADER, FISHMAN & GRAUER PLLC  
10653 S. RIVER FRONT PARKWAY  
SUITE 150  
SOUTH JORDAN, UT 84095